

Chest Pain

Two killers must be thought of and ruled out: **MI** and **PE**.

- 1) MIs are silent 2/3 of the time post-op. Every patient should be on tele in recovery and high risk patients should stay for 1 night for monitoring. **ST As** or **⊕ Troponins** clinch the diagnosis. **DO NOT** give **clot busters**. All other therapies are equal to non-op MIs.
- 2) PEs will be **Short of Breath** with some chest pain that is **pleuritic** with **sudden onset dyspnea**. "Soft Signs" are: **ABG** with **Hypoxic Hypocapnia**, **S<sub>1</sub>Q<sub>3</sub>T<sub>3</sub>** **EKG** and a **clear CXR**. Confirm the diagnosis with a **CT scan**. Put them on **Heparin** to prophylax and then as a treatment to **Coumadin Bridge**. The only time you use an **IVC filter** is if there is a contraindication to anticoagulation.

Pulmonary Complications

See Post-OP Fever. Just remember we **intubate** patients only **after sedation** and don't attempt surgery until **8 hrs of NPO** to avoid **aspiration pneumonia**. Prevention is key. If aspiration (combative patient, emergency surgery) is suspected treat with abx that cover gram neg and anaerobes. Steroids **DO NOT** help.

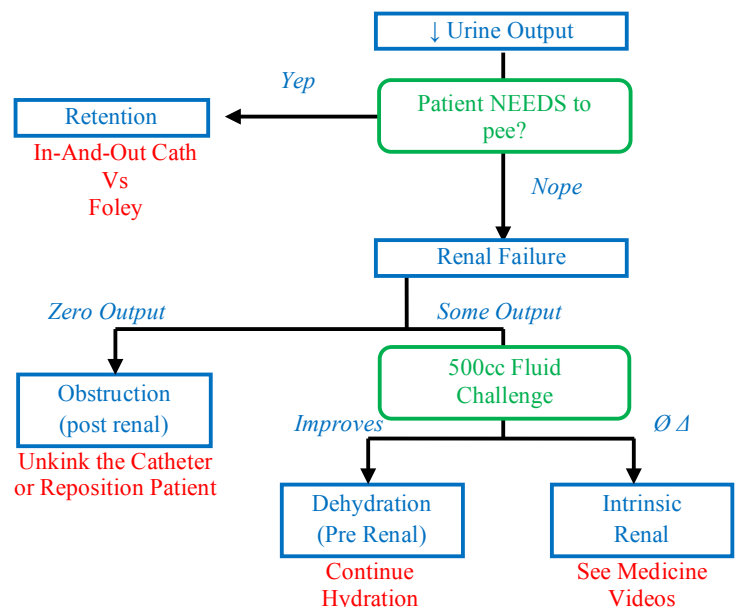
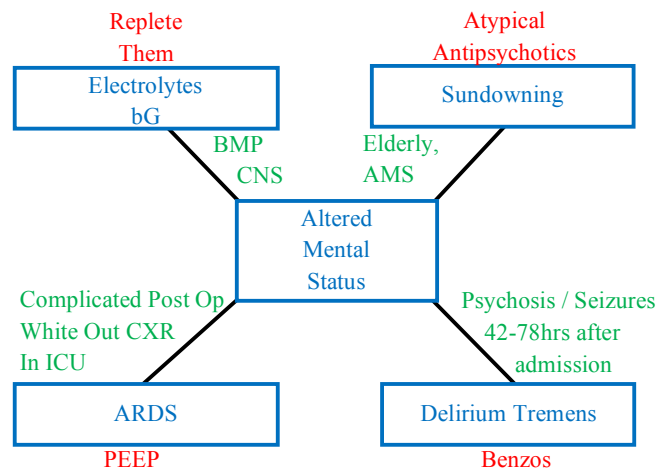
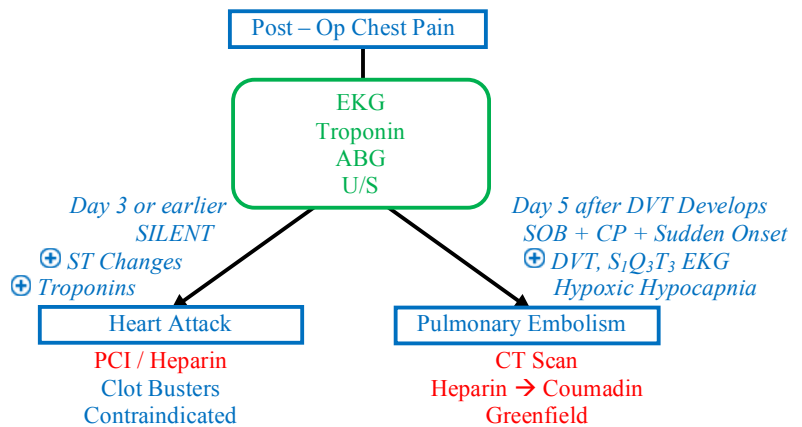
Altered Mental Status

A post-op delirium is just as complex as an out-of-hospital one. However, since we NPO patients, keep them under watch, control fluids and blood glucose (rather than having them "found down" with a host of potential intoxications), it's usually one of a few things. **Hypoxia** can do it and is a simple fix (**give O<sub>2</sub>** and **intubate** as needed). A patient that lands in the ICU because of a rocky hospitalization should be suspected for **ARDS**. Get a **chest X-ray** to see the **white out** and treat with a ventilator giving **PEEP**. Another easy thing to fix is **electrolytes** and **hypoglycemia** (get a CMP and replace). The one to really watch for is the guy who swears he doesn't drink, but then has a **seizure** or who is **psychotic 48-72 hrs** after admission. He's in **Delirium Tremens** and needs emergent **Benzos**.

Renal Complications

Beyond infection there are only a few diseases to consider; they are all based upon **how much urine** is being made.

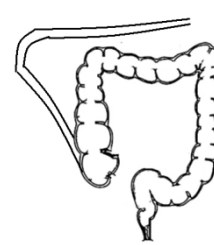
- 1) **Urinary Retention** is common. If the patient feels the need to void but can't, do an **in-and-out cath after SIX hours** of not voiding. Leave a Foley in place if two in-and-out caths are required. If a patient will be under for **>3 hrs**, a **Foley** catheter is placed automatically. It's more common and worse in men because they have prostates. Foley's out asap.
- 2) **Zero Output** means a mechanical obstruction or post-renal failure. Anuria is rare (unless BOTH ureters are cut). Unlink the **catheter** and urine will flow.
- 3) **Low Output** is a problem with Renal Failure (prerenal or intrinsic). See nephrology for details. But first, just do a **500cc bolus challenge**. If dehydrated, Urine Output will increase slightly with the bolus. If it doesn't, there's some sort of intrinsic **renal failure** that requires a more vigorous workup.



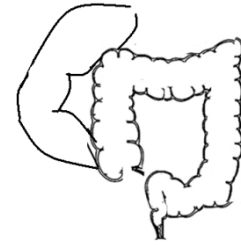
Abdominal Distention

This isn't an uncommon occurrence. Mucking around in the gut can cause some problems. Given the situation, it should be possible to determine which of these is going on:

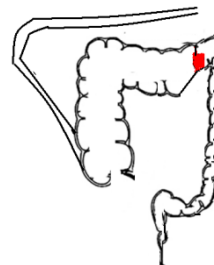
- 1) **Paralytic Ileus** is expected post-op. We frequently assess if there's been "**gas passed**," progressing to passage of stool. Ileus is common on the first day but should subside with **ambulation** and **diet**. Though distended, there shouldn't be pain. An upright and flat KUB should show diffuse enlargement of small and large bowel. Watch for hypokalemia - a common cause of ileus.
- 2) **Bowel Obstruction** is a big deal. It's discussed in greater detail in its own topic later. If what appears to be a paralytic ileus **hasn't resolved** by **day 5-7**, do a Flat and Upright **KUB** to see dilated loops of bowel and **air-fluid levels** with decompressed bowel beyond the obstruction. A **contrast swallow CT** could also be done to see if tracer material passes the obstruction to confirm. Ultimately, this patient goes back to the OR.
- 3) **Ogilvie Syndrome** is a "paralytic ileus of the colon" that occurs in **elderly sedentary patients** who become immobilized after surgery. Their **colon only** will be very dilated, shown on a flat and upright **KUB**. Do a **colonoscopy** to **rule out cancer** and to **decompress** the abdomen (two for one deal). Leave a **rectal tube** in place.



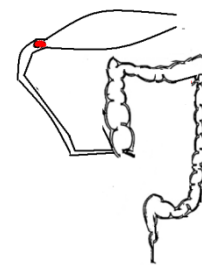
Normal Bowel



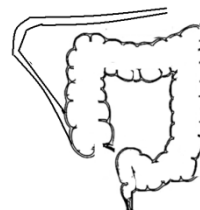
Ileus, Large + Small Bowel



Large Bowel Obstruction



Small Bowel Obstruction



Ogilvie Syndrome

Wounds

In the immediate post-op period it's essential to look for failure of wound closure.

- 1) **Dehiscence**. The skin is intact but the **fascia has failed**. If dressings are unusually soaked or have a **salmon-color** (blood and peritoneal fluid look sort of pink) think dehiscence. Evisceration must be prevented. **Bind** the abdomen and limit movement and straining. This is how patients get ventral hernias. **Elective surgical repair** is the treatment. Especially note this is **ELECTIVE**.
- 2) **Evisceration**. Both the **skin and fascia fail** after a patient strains / coughs / has any increase in intra-abdominal pressure. The wound pops open and the **bowel pops out**. This is an emergency. Cover the bowel with **warm saline dressings** and get back to the **OR. NOW**. Absolutely never push it back in. Absolutely never use dry dressings.

Fistulas

Fistulas are defined as a **connection between two epithelialized surfaces**. They're common in IBDS and when surgical wounds fail to heal. When they exist consider what has kept them open. Use the "FRIEND" or "**FETID**" mnemonic. Things that keep a fistula open are **F**oreign Bodies, **E**pithelization, **T**umor, **I**nfection/Irradiation/IBD, or **D**istal Obstruction. It's necessary to either a) **remove the fistula** or b) **divert** the bowel so the fistula can close on its own.

<b>F</b>	Foreign Bodies
<b>E</b>	Epithelization
<b>T</b>	Tumor
<b>I</b>	Infection / Irradiation/ Inflammatory Bowel
<b>D</b>	Distal Obstruction